

Oracle Reports Developer 10g: Build Reports

Duration 5 Days

What you will learn

In this course, students learn how to design and build a variety of standard and custom Web and paper reports using Oracle Reports Developer. Working in the declarative environment of Reports Builder, students learn how to retrieve, display, and format data from any data source in numerous reporting styles and publish the output to any destination.

During the course, students learn how to add dynamic content to a static Web page and publish reports to the Web. Students also learn how to customize more complex reports, embed graphical charts, and use OracleAS Reports Services to deploy your reports.

Audience

Database Administrators
Technical Consultant
Reports Developer

Prerequisites

XML: Introduction or equivalent familiarity with basic XML

Course Objectives

- Create reports by accessing data from various data sources
- Add dynamic data to an existing HTML page
- Use report parameters and customize a runtime parameter form
- Enhance reports using graphs and PL/SQL trigger code
- Maximize report performance using OracleAS Reports Services and tune reports
- Publish a report on the Web and build reports to run in various languages
- Manage report templates, create mailing labels and letters
- Identify the main components in a report document and how they are related
- Identify the differences between Web and paper reports
- Identify standard report design styles and run existing reports to various output destinations
- Create and modify basic tabular reports and high quality Web reports
- Create other report styles such as break reports and matrix reports

Course Topics

Introduction to Oracle Reports Developer

- Business Intelligence
- Enterprise Reporting
- Oracle Reports Developer
- Oracle Database 10g
- Oracle Developer Suite 10g
- Oracle Application Server 10g
- OracleAS Reports Services
- OracleAS Reports Services Architecture for the Web

Designing and Running Reports

- Understanding User Requirements
- Designing Reports
 - Tabular
 - Master-Detail
 - Master with Two Details
 - Matrix
- Retrieving and Sharing Data
- Running a Report

Working in Oracle Reports Developer

- Reports Developer Executables

- Invoking Reports Builder
- Reports Builder Modules
- Report Data and Layout
- Reports Builder Components
- Object Navigator
- Report-Level Objects
- Data Model Objects

Creating a Paper Report

- Report Module Components
- Building a Paper Report
- Viewing the Paper Report Output
- Saving the Report Definition
- Reentering the Wizard
- Creating Break Reports
- Break Report Labels
- Creating Mailing Labels and Letters

Enhancing a Basic Paper Report

- What Is the Paper Design?
- The Paper Design Window
- Modifying a Report
- Aligning Columns
- Setting a Format Mask
- Manipulating Objects
- Modifying Visual Attributes
- Applying Conditional Formatting

Managing Report Templates

- Using Report Templates
- Modifying a Template
- Customizing the Template Margin
- Customizing the Template Body
- Adding Web Links to a Template for Report HTML Output
- Predefining Your Own Templates
- Adding a Template Preview Image

Creating a Web Report

- What Is JSP Technology?
- JSP Advantages
- Simple JSP Example
- Building a Web Report
- Using the Report Wizard
- Report Editor: Web Source View
- JSP Tags
- Web Source Example

Enhancing Reports Using the Data Model: Queries and Groups

- The Data Model Objects
- Modifying Properties of a Query
- Applying Changes
- Changing the Group Structure
- Group Hierarchy
- Ordering Data in a Group
- Query Modifications
- Filtering Data in a Group

Enhancing Reports Using the Data Model: Data Sources

- Data Source Types
- Pluggable Data Sources
- Using XML as a Data Source
- Document Type Definition File
- OLAP Data Source
- Using Text as a Data Source

Using JDBC as a Data Source
Using REF Cursor Queries

Enhancing Reports Using the Data Model: Creating Columns

Data Model Columns
Maintaining Data Source Columns
Producing File Content Output
Creating a Column
Creating Summary Columns
Displaying Subtotals
Displaying Percentages
Creating a Formula Column

Enhancing Reports Using the Paper Layout

Viewing the Paper Layout
Designing Multipanel Reports
Printing Multipanel Reports
Different Objects in the Paper Layout
The Paper Layout Layers
Report Processing
Paper Layout Tools
Report Bursting

Controlling the Paper Layout: Common Properties

Modifying Paper Layout Object Properties
Common Layout Properties
Sizing Objects
Anchors
Layout Object Relationships
Pagination Icons in the Paper Layout
Controlling Print Frequency
Using Format Triggers

Controlling the Paper Layout: Specific Properties

Properties of a Repeating Frame
Specifying Print Direction
Controlling the Number of Records per Page
Controlling Spacing Between Records
Minimum Widow Records
System Variables
Valid Source Columns
Displaying File Contents

Web Reporting

Comparing Static and Dynamic Reporting
Adding Dynamic Content
Creating a Report Block
Invoking the Report Block Wizard
Examining the Web Source Code
rw:foreach Tag
rw:field Tag
Customizing Reports JSPs

Extending Functionality Using XML

Why Use XML Report Definitions?
Creating XML Report Definitions
Partial Report Definitions: Format Modification Example
Partial Report Definitions: Format Exception Example
Full Report Definition: Data Model Modification Example
Running XML Report Definitions
Debugging XML Report Definitions

Creating and Using Report Parameters

Creating User Parameters

- Referencing Parameters in a Report Query
- Using Bind References
- Using Lexical References
- Hints and Tips When Referencing Parameters
- Creating a List of Values
- Referencing System Parameters
- Building a Paper Parameter Form

Embedding a Graph in a Report

- Adding a Graph to a Paper Report
- Adding a Graph to a Web Report
- Selecting the Graph Type
- Selecting the Graph Data
- Adding Options to the Graph
- Customizing Web Graphs
- The rw:graph Tag
- Customizing Graphs Using the Graph.XML File

Enhancing Matrix Reports

- The Matrix Data Model
- The Matrix Paper Layout
- Creating Matrix Summaries
- Creating the Matrix Manually
- The Matrix with Group Data Model
- The Matrix with Group Layout
- Building a Nested Matrix
- Nested Matrix Paper Layout

Coding PL/SQL Triggers

- Types of Triggers in Reports
- Trigger Code
- Using Report Triggers
- Using Data Model Triggers: PL/SQL Group Filter
- Using Data Model Triggers: Parameter Validation
- Using Layout Triggers
- Using Format Triggers
- Event-Based Reporting

Extending Functionality Using the SRW Package

- Contents of the SRW Package
- Outputting Messages
- Executing a Nested Report
- Restricting Data
- Initializing Fields
- Creating a Table of Contents
- Performing DDL Statements
- Setting Format Attributes

Maximizing Performance Using OracleAS Reports Services

- Running Reports Using OracleAS Reports Services
- Report Request Methods
- Oracle Application Server Components
- Enabling Single Sign-On Access
- Running the Web Layout: JSP Run-time Architecture
- Running the Paper Layout: Servlet Run-time Architecture
- Running a Paper Report on the Web
- Queue Manager

Building Reports: Efficiency Guidelines

- Tuning Reports
- Performance Measurement
- Non SQL Data Sources
- Investigating the Data Model
- Investigating the Paper Layout

Running the Report
Different Development and Run-Time Environments
Developing Reports to Run in Different GUIs

Suggested Next Courses